Public Health Surveillance & Reporting

Mission

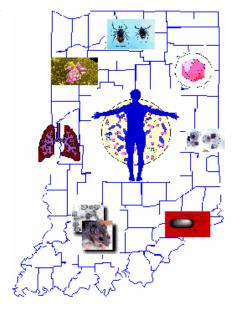
To protect and promote human health in Indiana by identifying and tracking important diseases, investigating disease outbreaks, and providing high quality data to public health institutions.

Summary of Activities

The **Indiana State Department of Health** (ISDH) is responsible for public health surveillance and reporting. One of the essential services provided by the ISDH is the gathering of information on the occurrence of diseases and other health events (e.g., births and deaths). Physicians, hospitals, laboratories, and other health care entities submit reports and data to the ISDH. These data are then aggregated with other data sources to provide a comprehensive picture of health events in Indiana.

In addition to reports received from others, the ISDH also conducts surveys to obtain health information. An example of this activity is the Behavioral Risk Factor Surveillance System, which gathers data on obesity, exercise, diabetes, and other key health behaviors.

The ISDH uses Geographic Information System (GIS) methods to analyze state and local mortality and morbidity data across ISDH programs. GIS uses computer technology to map population and health characteristics and track any variations geographically. By comparing and coupling geographic population data with local health indicators and local health resources, the ISDH has a powerful tool to help target resources and funding.



The ISDH maintains an extensive collection of public health information on its Web site at www.state.in.us/isdh. The ISDH produces several reports on health events and disease occurrence in Indiana. Some typical reports include the Indiana Mortality Report, Indiana Cancer Mortality Report, Behavioral Risk Factor Report, Indiana Natality Report, Indiana Report of Infectious Diseases, Indiana Hospital Consumer Guide, and Indiana Terminated Pregnancy Report. The ISDH responds to thousands of requests for information each year from other health agencies, health organizations, businesses, and members of the public.

The ISDH is also responsible for assisting Indiana's local health departments (LHD) in the investigation of unusual occurrences of illness and outbreaks of infectious disease. Depending on the LHD's capabilities, this assistance varies from providing advice and recommendations to actual investigative activities. Each investigation involves trying to determine the source or cause of the outbreak and determining its magnitude. The ISDH and LHD work collaboratively to halt the spread of disease and develop recommendations to prevent similar outbreaks in the future.

External Factors

Effective public health surveillance is dependent upon active partnerships with doctors, hospitals, and community health organizations. Nonreporting, late reporting, and incomplete reporting by health care professionals has the effect of seriously limiting the effectiveness of the public health surveillance system. Emerging and reemerging infectious diseases must be added to the surveillance system, and reporting parties must be made aware of their existence. In addition, current political realities increase the possibility that a terrorist group might use biological weapons in an act of aggression against the United States. One of the new challenges for the ISDH is to plan for the detection and response to such an attack.

Evaluation and Accomplishments

Despite increasing demands on surveillance services, the ISDH continues to provide timely and accurate surveillance for diseases of public health interest, investigate disease outbreaks, and track the human health effects of environmental contaminants. Recent experiences with unusual diseases such as West Nile virus and monkeypox illustrate that the public health surveillance and investigation system is functioning well.

The Indiana Childhood Lead Poisoning Prevention Program demonstrated the significant benefits of using GIS in surveillance. By comparing computer maps of high environmental lead concentrations with maps of high levels of childhood lead poisoning, the ISDH was able to adopt screening policies and procedures that focus on the most at-risk neighborhoods throughout Indiana. Similarly, the use of GIS to identify specific

Disease	Cases						
	1996	1997	1998	1999	2000	Five-year	Five-year
						Mean	Median
AIDS	602	502	476	356	385	464	476
Campylobacteriosis	693	571	605	511	592	594	592
Chlamydia	10,100	9,979	11,267	11,884	13,986	11,443	11,267
Cryptosporidiosis	59	49	58	47	74	57	58
E. coli O157:H7	83	75	91	107	131	97	91
Giardiasis	874	718	736	654	517	700	718
Gonorrhea	6,425	6,383	6,643	6,154	6,500	6,421	6,425
Hepatitis A	366	327	156	105	132	217	156
Hepatitis B	148	89	101	77	85	100	89
Histoplasmosis	88	*97	*98	75	82	88	88
Legionellosis	23	46	71	53	41	47	46
Listeriosis	19	11	17	12	9	14	12
Lyme Disease	16	16	*20	13	23	18	16
Malaria	16	17	9	22	11	15	16
Measles	0	0	3	2	0	1	0
Meningococcal Disease	63		*67	*60	59	61	60
Mumps	8	15	7	5	2	7	7
Pertussis	128	104	185	90	153	132	128
Rabies, Animal	9	13	12	13	14	12	13
Rocky Mt. spotted fever	7	1	2	10	4	5	4
Salmonellosis	590	586	649	572	677	615	590
Shigellosis	161	94	159	368	1,591	475	161
Primary & Secondary Syphilis	207	148	212	449	356	310	212
Tuberculosis	202	168	188	150	145	171	168
Typhoid Fever	4	3	2	6	6	4	4
Yersiniosis	13	10	16	19	13	14	13
*Numbers corrected from the 1999 Report of Disease of Public Health Interest.							

at-risk locations for infant mortality and other adverse health outcomes has fostered discussions with local health officials on how to improve health outcomes in those areas.

Plans for the Biennium

- 1) Chronic diseases kill more Indiana residents than all other causes combined. The ISDH will develop a chronic disease epidemiology program to support the parallel development of chronic disease prevention programs.
- 2) The ISDH will increase its GIS capacity to support policy development, program planning, epidemiologic studies, and presentation of data to the public through the ISDH Web site.
- 3) The ISDH will continue to be heavily involved in providing training to local health departments, often in cooperation with the **Indiana University** School of Medicine, Department of Public Health.

